Section 3-6: Perpendiculars and Distance

By the end of this lesson, you should be able to answer:
- How do you find the distance between a point and a line?
- How do you find the distance between parallel lines?

Define the following:
1. Equidistant

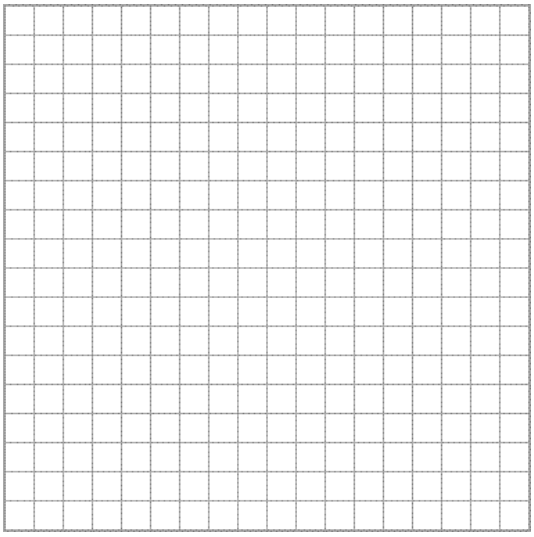
2. Distance Between a Point and a Line

3. Distance Between Parallel Lines

Postulates & Theorems
1. Perpendicular Postulate

2. Two Lines Equidistant from a Third

Example 1: The line *a* contains the points *T*(0, 0) and *U*(–5, 5). Find the distance between line *a* and the point *V*(1, 5).



Example 2: Find the distance between the parallel lines *m* and *n* with equations $y = 2x + 3$ and $y = 2x - 1$, respectively.

Example 3: Line *h* contains points *E*(2, 4) and *F*(5, 1). Find the distance between *h* and point *G*(1, 1).

Problem Set:

"I'm a great believer in luck, and I find the harder I work the more I have of it." - Thomas Jefferson